



US 20060206215A1

(19) **United States**

(12) **Patent Application Publication**  
**Clausen et al.**

(10) **Pub. No.: US 2006/0206215 A1**

(43) **Pub. Date: Sep. 14, 2006**

(54) **SENSING SYSTEMS AND METHODS FOR  
MONITORING GAIT DYNAMICS**

(60) Provisional application No. 60/649,226, filed on Feb.  
2, 2005.

(76) Inventors: **Arinbjorn V. Clausen**, Reykjavik (IS);  
**Magnus Oddsson**, Hafnarfirdi (IS)

**Publication Classification**

Correspondence Address:

**KNOBBE MARTENS OLSON & BEAR LLP**  
**2040 MAIN STREET**  
**FOURTEENTH FLOOR**  
**IRVINE, CA 92614 (US)**

(51) **Int. Cl.**

**A61F 2/66** (2006.01)

**A61F 2/70** (2006.01)

(52) **U.S. Cl.** ..... **623/24**; 623/55; 623/912;  
73/172

(21) Appl. No.: **11/430,076**

(22) Filed: **May 8, 2006**

**Related U.S. Application Data**

(63) Continuation of application No. 11/346,600, filed on  
Feb. 2, 2006.

(57)

**ABSTRACT**

Systems and method for monitoring gait dynamics are disclosed. The performance of an orthotic or prosthetic device or other device associated with a limb may be measured based on the resistance of a bending sensor. Data from the sensors is gathered or processed, particularly for purposes of alignment, safety, failure, usage, selection, and artificial proprioception. Information relating to the device may be outputted visually or auditorily to an individual.

